

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16 (Cancelled)

17. (Currently Amended) A compressor, comprising:

a compression mechanism that draws, compresses and discharges refrigerant;

a reservoir configured to store liquid which lubricates the compression mechanism;

a housing that contains the compression mechanism and the reservoir; and

a refrigerant go-around passage which introduces the refrigerant discharged from the compression mechanism into the housing via a refrigerant introducing port, the refrigerant go-around passage being spaced from and surrounding a structure which surrounds an axial line of the compressor, the refrigerant go-around passage comprising larger curved portions, smaller curved portions, and approximately straight portions, the larger curved portions having a radius of curvature which is larger than a radius of curvature of the smaller curved portions, the curvature of the large curved portions are concentric with the axial line of the compressor, the smaller curved portions and the approximately straight portions are alternatingly connected to each other along a path defined by the refrigerant go-around passage, both the smaller curved portions and the

approximately straight portions provided between the large curved portions along the path defined by the refrigerant go-around passage, the refrigerant being directed around the axial line of the compressor and returned to a discharge-port side of the housing via a refrigerant returning port, while separating the liquid from the refrigerant by centrifugation or by centrifugation and collision,

wherein a liquid returning port is provided to return the separated liquid into the housing in a wall of a mid part of the refrigerant go-around passage in such a manner that the liquid returning port has an orientation that has a component in a direction of gravity and that is deviated from a traveling direction of the refrigerant.

18. (Previously Presented) The compressor of claim 17,

wherein the refrigerant introducing port is provided in an upper portion of the housing;

wherein the refrigerant returning port is provided in the upper portion of the housing; and

wherein the wall of the mid part is provided in a lower part of the refrigerant go-around passage.

19. (Previously Presented) The compressor according to claim 17,

wherein the refrigerant go-around passage is arranged on a same plane.

20. (Previously Presented) The compressor according to claim 17,

wherein the refrigerant go-around passage is provided at a discharge-port side end

of the housing.

21. (Previously Presented) The compressor according to claim 17,
wherein the refrigerant go-around passage comprises a concave streak and a lid
which covers the concave streak, the concave streak being formed on a substrate attached
to the housing or to an end wall of the housing.

22. (Previously Presented) The compressor according to claim 21,
wherein the substrate is attached to the housing together with the lid.

23. (Previously Presented) The compressor according to claim 17,
wherein each of the refrigerant introducing port, the refrigerant returning port, and
the liquid returning port is provided at at least one position in the traveling direction of
the refrigerant.

24. (Previously Presented) The compressor according to claim 17,
wherein the refrigerant introducing port is provided with a guide which directs the
collected refrigerant into the refrigerant introducing port.

25. (Previously Presented) The compressor according to claim 17, further
comprising:
an electric motor that is housed in the housing and that drives the compression
mechanism.

26. (Previously Presented) The compressor according to claim 18, wherein the refrigerant go-around passage is arranged on a plane.

27. (Previously Presented) The compressor according to claim 18, wherein the refrigerant go-around passage is provided at a discharge-port side end of the housing.

28. (Previously Presented) The compressor according to claim 18, the refrigerant go-around passage comprising a concave streak and a lid which covers the concave streak, the concave streak being formed on a substrate attached to the housing or to an end wall of the housing.

29. (Previously Presented) The compressor according to claim 28, wherein the substrate is attached to the housing together with the lid.

30. (Previously Presented) The compressor according to claim 18, wherein each of the refrigerant introducing port, the refrigerant returning port, and the liquid returning port is provided at at least one position in the traveling direction of the refrigerant.

31. (Previously Presented) The compressor according to claim 18, wherein the refrigerant introducing port is provided with a guide which directs the

collected refrigerant into the refrigerant introducing port.

32. (Previously Presented) The compressor according to claim 18, further comprising:

an electric motor that drives the compression mechanism and that is housed in the housing.

33. (Previously Presented) The compressor according to claim 17, wherein the refrigerant go-around passage is provided in the housing.

34. (Previously Presented) The compressor according to claim 17, wherein a cross-sectional area of the refrigerant go-around passage, excluding the return port, is substantially uniform.

35. (Currently Amended) A compressor, comprising:

a compression mechanism which draws, compresses and discharges refrigerant;

a reservoir configured to store liquid which lubricates the compression mechanism;

a housing that contains the compression mechanism and the reservoir; and

a refrigerant go-around passage comprising a spiraling channel, the spiraling channel of the refrigerant go-around passage comprising larger curved portions, smaller curved portions and approximately straight portions, the larger curved portions having a radius of curvature which is larger than a radius of curvature of smaller curved portions,

the curvature of the large curved portions are concentric with the axial line of the compressor, the smaller curved portions and the approximately straight portions alternately connected to each other along a path defined by the spiraling channel, both the smaller curved portions and the approximately straight portions provided between the large curved portions along the path defined by the spiraling channel.

wherein the refrigerant go-around passage introduces the refrigerant discharged from the compression mechanism into the housing via a refrigerant introducing port, wherein the refrigerant is directed around an axial line of the compressor and returned to a discharge-port side of the housing via a refrigerant returning port, while separating the liquid from the refrigerant by centrifugation or by centrifugation and collision,

wherein a liquid returning port returns the separated liquid into the housing in a wall of a mid part of the refrigerant go-around passage in such a manner that the liquid returning port has an orientation that has a component in a direction of gravity and that is deviated from a traveling direction of the refrigerant.

36. (New) The compressor according to claim 17, wherein the refrigerant go-around passage further comprises a bending section provided in a mid-portion of the path defined by the refrigerant go-around passage.

37. (New) The compressor according to claim 17, wherein the refrigerant go-around passage further comprises a collision wall provided in a mid-portion of the path defined by the refrigerant go-around passage, wherein collision between the collision wall and the refrigerant separates the liquid from the refrigerant.

38. (New) The compressor according to claim 17, wherein the refrigerant go-around passage further comprises a collision wall provided at a down-stream side of the refrigerant go-around passage which is adjacent to the liquid returning port, wherein collision between the collision wall and the refrigerant separates the liquid from the refrigerant.

39. (New) The compressor according to claim 38, wherein the refrigerant go-around passage further comprises a liquid escape path provided at the down-stream side of the refrigerant go-around passage, the liquid escape path configured to allow the liquid separated from the refrigerant to return to the liquid returning port.

40. (New) The compressor according to claim 17, wherein the separated liquid is returned to the reservoir which stores liquid that lubricates the compression mechanism.

41. (New) The compressor according to claim 35, wherein the spiraling channel further comprises a bending section provided in a mid-portion of the path defined by the spiraling channel.

42. (New) The compressor according to claim 35, wherein the refrigerant go-around passage further comprises a collision wall provided in a mid portion of the path defined by the spiraling channel, wherein collision between the collision wall and the refrigerant separates the liquid from the refrigerant.

43. (New) The compressor according to claim 35, wherein the refrigerant go-around passage further comprises a collision wall provided at a down-stream side of the refrigerant go-around passage which is adjacent to the liquid returning port, wherein collision between the collision wall and the refrigerant separates the liquid from the refrigerant.

44. (New) The compressor according to claim 43, wherein the refrigerant go-around passage further comprises a liquid escape path provided at the down-stream side of the refrigerant go-around passage, the liquid escape path configured to allow the liquid separated from the refrigerant to return to the liquid returning port.

45. (New) The compressor according to claim 35, wherein the separated liquid is returned to the reservoir which stores liquid that lubricates the compression mechanism.